WHAT IS CLAIMED IS:

1. A radio base station for wirelessly communicating with a radio terminal, comprising:

a radio communication unit for wirelessly communicating with said radio terminal;

an antenna for transmitting or receiving radio waves with a directivity; and

a controller for changing the directivity of said antenna, detecting a state of radio waves emitted from another radio base station, and setting a communication area of the concerned radio base station on the basis of the detected radio wave state.

2. The radio base station according to claim 1, wherein said controller comprising:

means for detecting an electric field intensity of radio waves transmitted from another radio base station;

means for converting the detected electric field intensity to a distance;

means for finding a relative direction and distance of the other radio base station with respect to the concerned radio base station; and

a positional information memory for storing a position of the other radio base station.

3. The radio base station according to claim 2, wherein said positional information memory stores a polar coordinate of the other radio base station with respect to the concerned radio base station.

4. The radio base station according to claim 1, wherein said controller sets a communication area of the concerned radio base station by adjusting a power of a radio wave output of said antenna, a reception sensitivity thereof, and a directivity thereof.

5. The radio base station according to claim 1, wherein said controller searches for a communicatable area of another radio base station other than the concerned radio base station, and when there is a radio base station whose radio waves interfere with radio waves used by the concerned radio base station, for setting the communication area of the radio waves of the concerned radio base station so that the radio wave interference is minimized, or for assigning the radio waves to a channel different from said other radio base station.

6. The radio base station according to claim 5, wherein said controller changes the setting of the communicatable area of the concerned radio base station or a radio channel to be used when a radio base station was added, when the radio base station was subject to radio wave interference by external noise, or when a position of the radio base station was moved.

7. The radio base station according to claim 5, wherein said controller has means for detecting a movement of the concerned base station, and changes the setting of the communicatable area of the concerned base station or a radio channel to be used.

8. The radio base station according to claim 5, wherein said controller has a search information memory for storing search information indicative of whether or not another radio base station other than the concerned base station is searching for a communicatable area, and searches for the communicatable area of the other base station when the other base station is not searching for the communicatable area.

9. A radio base station for wirelessly communicating with a radio terminal, comprising:

communication means for connecting the concerned radio base station with a radio base station other than the concerned base station;

a radio communication unit for wirelessly communicating with said radio terminal;

an antenna for transmitting and receiving radio waves with a directivity; and

a controller for changing the directivity of said antenna, detecting a state of radio waves transmitted by the other radio base station, and setting a communication area and positional information of the concerned base station on the basis of said radio wave state,

wherein the concerned base station informs the other base station of the positional information of the concerned base station.

10. The radio base station according to claim 9, wherein said communication means is a wired LAN.

11. The radio base station according to claim 9, wherein said communication means receives the positional information of the other radio base station other than the concerned base station, and said controller sets the communication area and positional information of the concerned base station on the basis of a result obtained by searching for the communicatable area of the other base station other than the concerned base station and the positional information of the other base station.

12. The radio base station according to claim 11, wherein said controller searches for the communicatable area of the other base station other than the concerned base station, and, when there was a radio base station uses radio waves interfering with radio waves used by the concerned base station, sets the communication area of radio waves of the concerned base station so as to minimize the radio wave interference or changes radio waves to be assigned to a channel different from that of the other base station.

13. A method for controlling a radio base station for wirelessly communicating with a terminal, comprising the steps of:

detecting a state of radio waves transmitted by another radio base station by changing a directivity of an antenna of the radio base station;

setting the concerned base station to have the same radio frequency band as the other base station

or setting the concerned base station to have a radio wave band different from the other base station according to the state of radio waves of the other base station; and

finding positional information of the concerned base station on the basis of the detected radio wave state of the other base station and setting a communicatable area for the concerned base station.

14. The method according to claim 13, further comprising the steps of:

receiving positional information of the other base station from the other base station;

generating positional information relative to the concerned base station on the basis of the received positional information of the other base station and the radio wave state transmitted by the other base station; and

setting a directivity, a radio output intensity and a reception sensitivity for the concerned base station on the basis of the positional information of the base station.

15. The method according to claim 14, further comprising the step:

changing a communicatable area of the other base station when setting of a communicatable area for the concerned base station failed.

16. The method according to claim 13, further comprising the step of:

judging whether or not the other base station detects the radio wave state, and

wherein the detection of the radio wave state of the other base station is carried out when the other base station is not in a similar searching operation.

17. The method according to claim 13, further comprising the steps of:

searching for said peripheral radio base station, finding initial positional information of the new base station, and setting a communicatable area for the new base station; and

informing another radio base station other than the new base station of said initial positional information.

18. The method according to claim 17, wherein said periphery searching of the radio base station is carried out when the other radio base station is not in a periphery searching operation.

19. The method according to claim 13, further comprising the steps of:

when the concerned radio base station was subject to radio wave interference by external nose, searching for said peripheral base station, finding positional information of the base station, and setting a communicatable area for the concerned base station; and

informing the other base station other than the concerned base station of the positional

information of the concerned base station.

20. The method according to claim 13, further comprising the steps of:

detecting a movement of the concerned base station;

when said movement was detected, searching for said peripheral radio base station, finding positional information of the base station, and setting a communicatable area for the base station; and

informing the other radio base station other than the concerned base station of said initial positional information.